

REMARKS

Claims 1-7 and 17-20 are pending in the present application. Applicants respectfully request reconsideration of the present application in view of the remarks presented herein.

35 U.S.C. § 102

Claims 17-20 stand rejected as allegedly unpatentable over Johnston (US 6,373,946, "Johnston"). Applicants have carefully reviewed the cited reference and respectfully assert that embodiments of the present invention as recited in Claims 17-20 are patentable over Johnston.

Applicants respectfully assert that Johnston fails to teach or fairly suggest "a digital media receiving device" as recited by Claim 17. Applicants respectfully assert that one of ordinary skill in the art would not understand the taught voice-only system to teach or fairly suggest "digital media" as recited by Claim 17. For example, a voice-only telephone is not generally known as or referred to as a "media device." Simply using digital technology to implement a telephone for voice communication likewise does not make it a "digital media device."

For this reason, Applicants respectfully assert that Claim 17 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

In addition with respect to Claim 17, Applicants respectfully assert that Johnston fails to teach or fairly suggest a receiving device, as recited by Claim 17. Applicants respectfully assert that one of ordinary skill in the art would not understand the taught telephone to be a “receiving” device. For example, transmission is fundamental to the operation of such a telephone. Applicants respectfully assert that one of ordinary skill in the art would understand the recited receiving device to be a device that primarily functions to receive. In contrast, the taught telephone has a primary function of two-way communication.

For this additional reason, Applicants respectfully assert that Claim 17 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

Further still with respect to Claim 17, Applicants respectfully assert that Johnston fails to teach or fairly suggest “encrypting said digital signal” in a receiving device, as recited by Claim 17. While Johnston may teach encrypting, such encrypting is taught “for data to be transmitted” (column 10, line 53, *inter alia*, emphasis added). Johnston fails to teach or fairly suggest encrypting data

on reception as claimed. Claim 17 recites encryption in a receiver. While Johnston may teach encryption in a transmitter, Applicants respectfully assert that Johnston fails to teach or fairly suggest the instant limitation of encryption in a receiver.

For this further still reason, Applicants respectfully assert that Claim 17 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

Moreover, Johnston actually teaches decryption of a received signal (column 11, lines 4-5), in contrast to Claim 17 that recites encryption of a received signal. In this manner, Johnston actually teaches away from embodiments in accordance with the present invention as recited by Claim 17.

For this further yet reason, Applicants respectfully assert that Claim 17 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

Applicants respectfully assert that Claims 18-20 overcome the rejections of record by virtue of their dependency, and respectfully solicit allowance of these Claims.

Further with respect to Claim 19, Applicants respectfully assert that Johnston fails to teach or fairly suggest the limitation, “a modifiable local memory contained within said first logical circuit, said modifiable local memory enabling the modification of a computer control program stored within said local memory” as recited by Claim 19.

Johnston teaches, “the subscriber has no access to the data stored in the SIM” (column 1 lines 36-37). Applicants respectfully assert that the taught “no access” teaches away from the instant limitation.

For this further reason, Applicants respectfully assert that the rejection of Claim 19 is overcome, and respectfully solicit allowance of this Claim.

Further still with respect to Claim 19, the rejection cites Johnston column 16 lines 47-49 as suggesting the limitations of this Claim. Applicants respectfully traverse. Applicants understand the cited passage to refer to replacement of SIM cards to enable secure communications among a group. For example, SIM cards with different characteristics are “provided” to “all user terminals” (column 16 lines 30-49, emphasis added). Neither the cited passage nor the whole of Johnston teaches or fairly suggests modification of a SIM card. Even if, *arguendo*, Johnston fairly suggests modification of a SIM card,

Johnston fails to suggest that such modifications take place within said “digital media receiving device,” as recited by Claim 19.

For this further still reason, Applicants respectfully assert that the rejection of Claim 19 is overcome, and respectfully solicit allowance of this Claim.

35 U.S.C. § 103

Claims 1 and 3-7 stand rejected as allegedly unpatentable over Spies et al. (US 6,055,314, “Spies”) in view of Deo et al. (US 5,721,781, “Deo”).

Applicants have carefully reviewed the cited references and respectfully assert that embodiments of the present invention as recited in Claims 1, and 3-7 are patentable over the combination of Spies in view of Deo.

The rejection proposes to modify Spies in view of Deo. However, Doe teaches an authentication system that is dependent upon hardware comprising global secrets, e.g., digital certificates (Abstract). However, Spies specifically teaches away from such a system. “It is therefore another object of this invention to provide a ... system that has no global secrets built into any hardware...” (Spies, column 2 lines 1-5). Consequently, Applicants respectfully assert that one of ordinary skill in the art would be taught away from the

proposed modification of Spies in view of Deo in view of the teachings of Spies
There is therefore no suggestion in the cited art to combine the references to
realize the claimed embodiments.

For this reason, Applicants respectfully assert that Claims 1 and 3-7, and
all other claims rejected over a combination of Spies in view of Deo, overcome
the rejections of record, and respectfully solicit allowance of these Claims.

Importantly, Applicants respectfully assert that the proposed
combination of Spies in view of Deo would change a principle of operation of at
least one of the references. It is well held that the proposed modification or
combination of the prior art would change the principle of operation of the prior
art invention being modified, then the teachings of the references are not
sufficient to render the claims *prima facie* obvious (*In re Ratti*, 270 F.2d 810,
123 USPQ 349 (CCPA 1959)).

Doe teaches, “the cardholder enters a unique PIN into the terminal” as a
part of a “three-tiered authentication system” (Abstract, *inter alia*). Entering a
PIN code into a digital media receiving device is not taught by Spies, is not
taught by the present application, and would be understood by one of ordinary
skill in the art to be an undesirable encumbrance to the usability of the recited
digital media receiving device. For example, entering a PIN into an automatic

teller machine (ATM) is common; however, entering a PIN into a set top box is unknown to the Applicants. Applicants respectfully assert that requiring a viewer to enter a PIN into the recited digital media receiving device would be an undesirable detriment to usability and market acceptance of such a device.

As the taught “three-tiered authentication system” is fundamental to Deo, removal of the PIN requirement for the proposed combination inherently changes at least one principle of operation of Deo. If the proposed combination retains Deo’s PIN requirement, such combination inherently changes at least one principle of operation of Spies. In addition, this combination is taught away from by well known usage of the class of recited digital media receiving devices.

As the proposed modification would change a principle of operation of at least one of the references, Applicants respectfully assert that the proposed modification of Spies in view of Deo renders an improper combination under 35 USC § 103. For this additional reason, Applicants respectfully assert that Claims 1 and 3-7, and all other claims rejected over a combination of Spies in view of Deo, overcome the rejections of record, and respectfully solicit allowance of these Claims.

Applicants respectfully assert that the rejection’s citation of Deo is improper because the reference is nonanalogous art per *In re Clay*, 966 F.2d

656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992). Applicants understand Deo to be directed to “portable information devices such as smart cards, personal digital assistants, pagers, and other personal information managers, and the mechanisms used to access these devices.”

Applicants respectfully assert that Doe would not commend itself to one of ordinary skill in the art in consideration of the problems solved by the present invention, due to the myriad well known differences between the taught “portable information devices” and the recited digital media receiving devices. For example, one of ordinary skill in the art would not consider a “Point of Deployment security module (POD)” as commonly used with digital media receiving devices to be analogous with the taught “portable information devices.” In fact, many deployments of PODs include contractual agreements prohibiting removal of the POD from the digital media receiving device. Further, some digital media receiving devices include means to prevent or discourage removal of a POD, including, e.g., erasure or destruction of the POD responsive to attempted removal.

In consideration of such differences, Applicants respectfully assert that one of ordinary skill in the art in consideration of the problems solved by the present invention would not be motivated to utilize the non-analogous teaching of Deo.

For this further reason, Applicants respectfully assert that Claims 1 and 3-7, and all other claims rejected over Deo, alone or in combination, overcome the rejections of record, and respectfully solicit allowance of these Claims.

With respect to Claim 1, Applicants respectfully assert that Spies in view of Deo fails to teach or fairly suggest the limitation “at said first logical circuit, decrypting said encrypted signal using said first decryption key” as recited by Claim 1.

In contrast, Spies teaches, “[t]he view computing unit 60 is not permitted, however, to read the decryption capabilities” (column 9, lines 25-26, emphasis added) and “the individual packet keys are never made available to the viewer computing unit...” (column 10, lines 46-47, emphasis added). Thus, in accordance with the teaching of Spies, the recited “first logical unit” does not decrypt the accessed encrypted signal, and further does not decrypt the accessed encrypted signal using the recited “first decryption key.”

In the response to arguments section, the rejection alleges, “the set top box ... meets the limitation of the recited ‘first logical unit.’”

In teaching benefits of keeping decryption capabilities and packet keys solely within the IC card, Spies actually teaches away from embodiments of the present invention that recite transferring a decryption key.

While the proposed modification of Spies in view of Doe is alleged to teach encryption and decryption of the recited first decryption key, Applicants respectfully assert that such teaching, even if present, does not remedy this deficiency of Spies, nor does the rejection allege that it does.

For these reasons, Applicants respectfully assert that Claim 1 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

The rejection argues, “the CPU of the set top box (first logical unit) receives the decryption key from the IC card to decrypt the encrypted signal.” Applicants respectfully assert that such a teaching fails to teach or suggest embodiments of the present claimed invention as recited in Claim 1.

Claim 1 recites, in part, the following limitations:

- d) encrypting said first decryption key at said second logical circuit by use of said public encryption key;
- e) transferring said encrypted first decryption key from said second logical circuit to said first logical circuit over a communication link;

f) at said first logical circuit, decrypting said encrypted first decryption key by use of a secret key to determine said first decryption key

Applicants respectfully assert that Spies fails to teach or fairly suggest the recited limitations of encrypting a decryption key, transferring the encrypted encryption key to another logical unit, and decrypting the encrypted decryption key.

Deo fails to remedy this deficiency of Spies as Deo fails to teach or fairly suggest use of the digital certificate exchange technique for uses other than certificate exchange.

For this additional reason, Applicants respectfully assert that Claim 1 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

Applicants respectfully assert that Claims 2-7 overcome the rejections of record by virtue of their dependency, and respectfully solicit allowance of these Claims.

In addition with respect to Claim 4, Applicants respectfully assert that Spies in view of Deo fails to teach or fairly suggest the limitation “replacing a computer control program stored in a second portion of local memory at said

second logical circuit with a new computer control program” in conjunction with the other limitations as recited by Claim 4.

While Spies may teach that cryptographic service providers (CSPs) can be changed or updated, Spies does not teach a method or system for such updates. In particular, Spies teaches such CSPs are “preferably ... stored in ROM (read only memory)” (column 11 lines 64-66). Applicants respectfully assert that one of ordinary skill in the art would understand that changing software stored in a ROM requires physical replacement of the ROM device. Moreover, software “stored in ROM” cannot be replaced as recited by Claim 4, as a ROM is, by definition, not writable. Consequently, Spies fails to teach updating software within the operation of the media system, as recited by Claim 4.

Deo is not alleged to correct this deficiency of Spies, and Applicants respectfully assert that it does not.

For these additional reasons, Applicants respectfully assert that Claim 4 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

In addition with respect to Claim 6, the rejection of February 17, 2006, concedes, “[r]eferring to claim 6... Spies and Deo do not disclose decryption

routine can be updated/replaced.” A third piece of art, not cited in the present rejection, was introduced in the rejection of Claim 6. As the rejection of February 17, 2006 concedes that Spies and Deo are not sufficient to reject Claim 6, Applicants respectfully assert that Claim 6 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

In addition with respect to Claim 7, Applicants respectfully assert that Spies in view of Deo fails to teach or fairly suggest the limitation “wherein said digital signal is substantially compliant with the Motion Pictures Experts Group (MPEG) format” as recited by Claim 7.

While Spies may teach the “video content can be TV broadcasts” as stated in the rejection, Applicants respectfully assert that the recited signal is not limited to “TV broadcasts” or even to video. For example, it is well known that compact disc (CD) audio is digital; however, it is generally not encoded in MPEG.

Moreover, the cited references do not teach or fairly suggest MPEG compliant signals. Both references are completely silent as to MPEG. The Examiner is invited to introduce art that teaches MPEG or to withdraw the rejection.

The rejection cites, but does not rely on, Walkinson, "The MPEG Handbook," 2004, Focal Press, Second Edition, Pages 366-381, 389-394 ("MPEG"). Applicants are confused by the rejection's treatment of this reference. MPEG shows a publication date of 2004, which is significantly later than the priority date of the present application (2001). Even, *arguendo*, using the earliest copyright date of 2001 listed for the non-cited first edition of MPEG, MPEG does not appear to qualify as § 102(b) prior art, as MPEG was published less than one year prior to the priority date of the present application (2001).

As MPEG is not applied in the rejection, and MPEG does not qualify as statutory prior art, Applicants respectfully assert that Claim 7 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

In addition with respect to Claim 7, the rejection appears to allege that Spies is directed only to digital distribution of video content, and that the MPEG reference teaches all digital video is MPEG encoded. Applicants respectfully traverse both allegations. Spies is directed to "purchase and delivery of video content programs over various distribution media" (Abstract, emphasis added). Applicants do not find Spies to exclude non-digital distribution. For example, Spies lists "video cassettes" (column 1 lines 15-16) as a common means of distributing video content. Applicants respectfully assert that the major video tape formats (e.g., VHS) are neither encoded in a

digital format nor are a digital distribution media. Consequently, Spies is not limited to only digital distribution.

Further, Spies teaches, “[v]ideo content programs are commonly supplied to viewers in many different forms, including theater films, video cassettes, TV cable and broadcast systems, game CDs, and on-line networks” (column 1 lines 14-17). Applicants respectfully assert that it is well known that the taught “theater films (and) video cassettes” are non-digital media. Applicants respectfully assert that it is well known that the taught “TV cable and broadcast systems” may be non-digital, and in fact the majority of such systems, including over-the-air broadcast television, are non-digital.

Therefore, *arguendo*, if the rejection’s allegation that all digital video is MPEG encoded, it does not follow that Spies suggests such encoding, as Spies allows for non-digital distribution.

For this additional reason, Applicants respectfully assert that Claim 7 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

Further with respect to Claim 7, Applicants traverse the rejection’s finding that all digital video is inherently MPEG encoded. Spies teaches that

video content program distribution media may include “game CDs” and “on-line networks.” Applicants respectfully assert that the taught “game CDs” and “on-line networks” may use non-MPEG encoding. For example, Audio Video Interleave (“AVI”) encoding is widely used in the taught “on-line networks.” As it is obviously possible to use non-MPEG methods to encode digital video, MPEG is not inherent. Consequently, the rejection’s allegation of inherency is improper, and any rejections that rely upon such an allegation are overcome.

For this further reason, Applicants respectfully assert that Claim 7 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

With respect to Claim 17, Applicants respectfully assert that Claim 17 overcomes the rejections of record for at least the rationale previously presented with respect to Claim 1, and respectfully solicit allowance of this Claim.

Claim 2 stands rejected as allegedly unpatentable over Spies et al. (US 6,055,314, “Spies”) in view of Deo et al. (US 5,721,781, “Deo”) and further in view of Schneier (Applied Cryptography, 1996, John Wiley & Sons, pp 513-514, “Schneier”). Applicants have carefully reviewed the cited references and respectfully assert that embodiments of the present invention as recited in

Claim 2 are patentable over Spies in view of Deo and further in view of Schneier.

Applicants respectfully assert that Claim 2 overcomes the rejections of record as Spies teaches away from a combination with Deo, for the rationale previously presented, and respectfully solicit allowance of this Claim.

Applicants respectfully assert that Claim 2 overcomes the rejections of record by virtue of its dependency, and respectfully solicit allowance of these Claims.

Further with respect to Claim 2, Applicants respectfully assert that Spies actually teaches away from embodiments of the present invention that recite the limitation of “generating said public encryption key using the technique of Diffie-Hellman Key Exchange” as recited by Claim 2.

In contrast, Spies teaches, “[t]he view computing unit 60 is not permitted, however, to read the decryption capabilities” (column 9, lines 25-26, emphasis added) and “the individual packet keys are never made available to the viewer computing unit...” (column 10, lines 46-47, emphasis added). Thus, in accordance with the teaching of Spies, the recited “first logical unit” does not

decrypt the accessed encrypted signal, and further does not decrypt the accessed encrypted signal using the recited “first decryption key.”

Thus, Spies teaches away from key exchange, whether utilizing the recited technique or not.

Doe fails to remedy this deficiency of Spies. Doe teaches “authentication” of a smart card and an ATM based upon the well known technique of certificate exchange. Accordingly, Doe depends upon a trusted third party, a “certifying authority” (column 7, lines 45-60). Further, Doe teaches transfer of keys via “certificates”, e.g., “the smart card uses the terminal’s public key that it received in the terminal’s certificate” (column 7, lines 1-3).

By teaching trust in a third party “certifying authority” and by teaching transfer of keys via certificates, Doe actually teaches away from “generating said public encryption key using the technique of Diffie-Hellman Key Exchange” as recited by Claim 2.

For these further reasons, Applicants respectfully assert that Claim 2 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

CONCLUSION

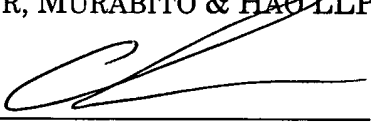
Claims 1-7 and 17-20 are pending in the present application. Applicants respectfully request reconsideration of the present application in view remarks presented herein.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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